REMARKS

Claims 1-10, 12-26, and 29-31 were pending in this application. In an Official Action dated September 10, 2004, claims 9, 10, 12-15, 26, and 29-31 were allowed and claims 1-8 and 16-25 were rejected. Applicants thank the Examiner for examination of the claims pending in this application and address the Examiner's comments below.

Claims 1-8 and 16-25 stand rejected under 35 USC § 103(a) as allegedly being unpatentable in view of U.S. Patent No. 6,170,025 to Drottar et al. ("Drottar") and U.S. Patent No. 6,148,414 to Brown et al. ("Brown"). In response, claims 1 and 16 have been amended to recite that the order of the data and the requests is maintained using FIFO structures. These features were previously recited in claims 4 and 20, which have been cancelled herein.

Turning now to amended independent claim 1, it recites:

> A method for communicating transaction request information from a PCI environment over a network, the method comprising:
> receiving a number of transaction requests from the PCI environment;
> determining a destination node ID and a destination address associated with each transaction request;
> maintaining an order of the transaction requests received;
> maintaining an order of data associated with each of the transaction requests;
> for each transaction request, assembling a packet including a request, a destination node ID and a destination address; and
> transmitting the packet to the network,
> wherein maintaining the order of the transaction requests and maintaining the order of data are accomplished using a first FIFO queue structure for read data, a second FIFO queue structure for write data and a third FIFO queue structure for the transaction requests. (Emphasis added).

The claimed invention, as recited in claim 1, receives transaction requests from the PCI environment and determines a destination node ID and address associated with each request. The claimed invention maintains an order of the received transaction requests and an order of data associated with each of the request. The claimed invention then assembles a packet that includes a request, a destination node ID and a destination address. The assembled packet is transmitted over the network. The claimed invention maintains an order of the requests and order of data associated with each of the request using FIFO queue structures. Amended claim 16 recites a system adapted to function accordingly.

Drottar fails to disclose or suggest the claimed invention, as recited in claim 1. For example, Drottar does not disclose or suggest at least the step of "maintaining the order of the transaction requests and maintaining the order of data are accomplished using a first FIFO queue structure for read data, a second FIFO queue structure for write data and a third FIFO queue structure for the transaction requests." There is only one passage in Drottar at col. 12, lines 19-24 that discusses packet ordering. Drottar orders packets that have already been assembled for transmission to the destination over a network. Drottar, however, does not disclose or suggest any FIFO queue structure for maintaining an order of the transaction requests and maintaining the order of read and write data associated with each request, as Applicants claim. Accordingly, for at least the above reasons, Drottar does not disclose or suggest the claimed invention as recited in claims 1 and 16.

Moreover, Brown fails to remedy the deficiency of Drottar. The Examiner cited col. 17, lines 1-11 of Brown to reject claims 4 and 20 that previously recited features incorporated into claims 1 and 16 respectively. The cited passage of the reference, however, fails to disclose the claimed invention. More specifically, Brown discloses at col. 17, lines 1-11:

> The requests are processed in some order such that all requests are satisfied in priority order. The request queue priority is established through any well-known algorithm (e.g. FIFO, LIFO).

Thus, the cited paragraph merely discloses maintaining the order of requests using well-known algorithms, such as FIFO or LIFO. Brown does not disclose or suggest maintaining an order of data associated with each request packet. Therefore, as a corollary to this, Brown could not disclose or suggest any specifics on how the order of the data is maintained. Thus, Brown fails to disclose or suggest at least the step of "maintaining the order of data are accomplished using a first FIFO queue structure for read data, a second FIFO queue structure ..., and a third FIFO queue structure ..." Accordingly, claims 1 and 16 are patentable over the combination of Drottar and Brown for at least the above reasons.

Since neither of the references discloses or suggests "maintaining the order of the transaction requests and maintaining the order of data are accomplished using a first FIFO queue structure for read data, a second FIFO queue structure for write data and a third FIFO queue structure for the transaction

requests," the combination of the references would not disclose the claimed invention.

Claims 2-8 and 17-25 depend either directly or indirectly from independent claims 1 and 16 respectively and derive their patentability from the independent claim from which they depend, in addition to reciting their patentable features.

Claim 8 depends on claim 1 and further recites that the step of determining a destination node ID and a destination address associated with each request includes: "deriving the destination node ID from a node ID table, each entry in the table indexed according to a logical node ID included in a PCI address space of the PCI environment." This technique is advantageous because it provides an additional level of abstraction between the local PCI address and the destination node ID, thereby providing greater scalability. The Examiner cited col. 18, lines 38-42 of Drottar for the disclosure of this claimed feature. The cited passage, however, discloses:

> At step 815, the NG I/O/PCI bridge 320 maps the PCI address of the transaction to a specific network address (identifying the target host computer 310) and the corresponding host memory address using a local I/O memory map.

This passage in Drottar merely discloses mapping the PCI address of the transaction to a network address. Neither the cited passage nor the disclosure surrounding the cited passage discloses or suggests how a destination node ID is determined, and thus does not disclose or suggest "deriving the destination node ID from a node ID table, each entry in the table indexed according to a logical

node ID included in a PCI address space of the PCI environment," as Applicants claim. Brown similarly fails to cure the deficiency of Drottar. As previously described, Brown fails to disclose determining a destination address of a transaction request. All Brown discloses is a mechanism by which Array Management Functions arbitrate to request a lock for a particular resource. Therefore, Brown fails to disclose or suggest "deriving the destination node ID from a node ID table ..." Hence, the combination of Drottar and Brown fails to disclose the claimed invention for at least the reasons described above. Applicants respectfully submit that claim 8 is patentable over Drottar and Brown for at least these reasons.

Conclusion

Applicants respectfully submit that claims 1-8 and 16-25, as presented herein, are patentably distinguishable over the cited references (including references cited, but not applied). Therefore, Applicants request reconsideration of the basis for the rejections to these claims and request allowance of them. In addition, Applicants respectfully invite Examiner to contact Applicants' representative at the number provided below if Examiner believes it will help expedite furtherance of this application.

Respectfully Submitted,
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